

Chapter 1 Introduction

The Office of Water is committed to ensuring the quality of all of its activities and decision-making processes. This document is the quality management plan for the Office of Water and all of its component parts. This plan describes the management and technical practices that are used to assure that the environmental data used by all programs within the Office of Water to support decisions are of adequate quality for their intended purpose. We refer to this collection of procedures and activities as our "quality system." It is designed to provide decision makers in the Office of Water with a practical framework for managing the quality of all activities within the Office.

Quality management is the part of an organization's overall management system that determines the requirements for quality up front and implements the policies and procedures needed to ensure that the quality requirements for the organization's products are continuously met. The Office of Water recognizes that there cannot be a one-size-fits-all approach to every activity. Therefore, the basic tenet of the Office of Water's quality system is shown to the right. This tenet is a guiding principle which applies throughout this quality management plan.

In addition to its commitment to quality in *all* of its activities, the Office of Water relies on environmental data in its daily activities and decision-making processes. Accordingly, the Office of Water is committed to ensuring the quality of the data on which these decisions are based, and has established a goal concerning the quality of data used within the Office.

Quality Policy

The Office of Water has established a quality policy that is based on this basic tenet and the goal for data quality. The policy provides a succinct statement of the scope of the quality system and the components of the quality policy guide the specifics of this plan. The quality policy stresses the need for systematic up-front planning and the use of a graded approach to quality management that conforms to the basic tenet listed above. The Office of Water's quality policy is summarized in **Exhibit 1**.

Basic Tenet of the Quality System

The level of effort needed to manage the quality of any activity depends on:

- *the importance of the activity,*
- *the risk of a decision error,*
- *the schedule for completion, and*
- *the available resources.*

Goal for Data Quality

Environmental decisions shall be based on data of known and documented quality, such that the decisions are scientifically, and where necessary, legally defensible and able to withstand public scrutiny.

Exhibit 1
Office of Water Quality Policy

- ***The quality system is not optional.*** It is a critical aspect of all activities in the Office of Water that involve the generation and use of environmental data and quality is built into these activities from the start. It applies to activities conducted by the Office of Water, its contractors and grantees, and to those programs delegated to States and Tribes.
- ***All staff in the Office of Water have a responsibility for the quality of their work and of the organization.*** The responsibility is fostered by clear communication of the goals and requirements of the quality system to all staff, as well as appropriate quality-related training.
- ***There is an individual identified within each organizational unit*** in the Office of Water who is the focal point for the implementation of the quality system within that unit and ***whose quality system activities are independent of the line management structure.***
- ***Quality is a critical responsibility of all levels of management within Office of Water*** and all management personnel have identifiable roles in the quality system. Managers are responsible for ensuring the allocation of funding for quality management activities, including intramural, extramural, and travel funds, as well as funding for personnel and quality-related training.
- ***Quality can only be achieved through systematic planning, assessment, and corrective action.*** Management is responsible for ensuring that adequate staff and other resources are devoted to these aspects of every project.
- ***The importance of the project, the risk of a decision error, the schedule for completion, and the available resources are used to establish the level of quality management applied to a given activity.*** These considerations must be addressed and documented during the planning phase of the activity.
- ***The quality of any environmental data or information used by the Office of Water must be assessed (known) and documented,*** regardless of the source. Managers and decision makers are responsible for ensuring that the results of those assessments are considered in the decision-making process.
- ***All environmental decisions made by the Office of Water must be evaluated relative to the quality of the underlying data and information and these evaluations must be documented.*** Where the quality of the data or information cannot be controlled by the user (e.g., data from sources outside of the Office of Water) or does not meet the objectives set during the planning

Graded Approach

The graded approach to quality management may be the most important aspect of this plan and it will apply to virtually all parts of the quality system. The basic philosophy behind the graded approach is to recognize that "quality" is not an objective attribute that remains constant. Rather, quality is a subjective attribute of a process or product that must be established *in the context of the use of that process or product*. Environmental data are the products of many activities within the Office of Water. Environmental decisions are also products, and they often are based on environmental data. Therefore, the quality of the data and the effort to manage the quality of the data and the decisions should be based

on the end goal of the decision.

Not all decisions based on environmental data require the same numerical certainty in the underlying results. Some decisions involve a greater risk if the decision is in error, for example, the risk to public health if the level of a contaminant in drinking water is not adequately controlled.

"Good" quality data are those data that enable the user to make the decision at hand with an acceptable risk of error and in the time frame required.

Moreover, most environmental decisions made by the Office of Water are associated with some schedule or deadline. These schedules and deadlines may be driven by legislative requirements, judicial decisions or consent decrees, funding priorities, or even emergency situations involving environmental accidents. Thus, as noted above, "good" quality data allow the decision to be made in the time frame required. Conversely, data that arrive too late to make the decision may be of little or no value at all, regardless of any other measures of their quality.

This plan provides the Office of Water with an explicit mechanism to apply a graded approach to strike a balance among the importance of the activity, the risk of a decision error, the schedule for completion, and the available resources, when managing the quality of any activity involving environmental decision making.

Limitations of the Plan

This plan is a policy document and it cannot:

- Be overly prescriptive, but will use examples and tools to provide context so that the user can tailor the system to specific needs
- Provide specific solutions, but will describe a general process and tools that can be used to support quality management activities
- Provide guidance for every situation or apply a single approach to all activities - it is a description of the general approach needed to implement the Office of Water's quality policy

How the Plan Affects You

This plan describes how you can manage the quality of your daily activities. While managers and other staff may have specific roles in the quality system that are described in this plan, all staff in the Office of Water play *some* role. If you are involved in the collection, evaluation, or use of environmental data, this plan describes activities that are essential to meeting the Agency-wide requirements for quality. Therefore, all Office of Water staff are urged to:

1. Read the plan
2. Identify your role in any data collection and environmental decision-making activities
3. Identify the people in your organization with specific quality system roles, including managers and quality system contacts, and your organizational relationships to them
4. Discuss the plan and any questions you have with your supervisors and line managers

As an EPA contractor or a grantee, many aspects of this plan will flow down to your organization in terms of specific contract or grant requirements to address quality. Therefore, you should follow the same four steps listed above.

How the Plan is Organized

This plan addresses all 10 of the required elements for an EPA quality system. However, in order to promote the understanding and use of the document by the staff, it is written from the perspective of an employee in the Office of Water, not a quality system specialist. Therefore, it is not rigidly organized around those 10 elements.

- Chapter 1 is the introduction and includes the Office of Water quality policy statement.
- Chapter 2 defines the types of environmental data and activities that are covered by this plan.
- Chapter 3 identifies staff and management responsibilities for implementing this plan.
- Chapter 4 provides an in-depth discussion of the tools and procedures used to implement the plan.
- Chapter 5 describes the importance of documenting quality system activities.
- Chapter 6 describes the management of quality system documentation and records.
- Chapter 7 describes our commitment to providing training that will allow for successful implementation of this plan.
- Chapter 8 describes the quality system requirements for computer hardware and software.
- Chapter 9 addresses procurement and financial assistance.
- The Reference section lists EPA quality system guidance and requirements documents.

The plan also includes a series of attachments that are checklists that may aid staff in the Office of Water in carrying out the requirements of the quality system and documenting those activities. These checklists include:

- Office of Water Project Quality System Documentation Checklist
- Generic Quality Assurance Project Plan Checklist
- Two attachments to Procurement Policy Notice 01-02, issued by the EPA Office of Acquisition Management in March 2001.
- Quality Assurance Review Form for Extramural Projects
- CMD-Cincinnati Work Assignment Review Checklist